

Application No. 10/690,987
September 30, 2008 Reply To Office Action

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AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. – 28. (canceled)

29. (previously presented) A method of loading a chamber of an automatic injection device with a medicament, the method comprising:

inserting a seal structure into the chamber at a user selected location within the chamber to divide the chamber into a front compartment and a rear compartment, the chamber having an open front end forming an open end of the front compartment and an open rear end forming an open end of the rear compartment, the chamber having no interior structures, the seal structure initially sealing the front compartment from the rear compartment and having a moveable sealing plug operative to move within the seal structure to open a flow path through the seal structure around the outermost periphery of the sealing plug;

filling the rear compartment of the chamber with a wet medicament portion through the rear end of the chamber, the wet medicament contacting interior side walls of the chamber;

sealing the rear end of the chamber;

filling the front compartment of the chamber with a dry medicament portion through the front end of the chamber; and

sealing the front end of the chamber.

30. (previously presented) The method of claim 29, wherein sealing the front end comprises placing a tapered insert in the front end of the chamber, the tapered insert having a tapered flow pathway therein, the flow pathway being tapered so that the diameter thereof increases as it extends rearwardly.

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31. (original) The method of claim 30, further comprising attaching a needle assembly to the front end.

32. (original) The method of claim 29, wherein the rear compartment of the chamber is filled with the wet medicament portion before the front compartment of the chamber is filled with the dry medicament portion.

33. (previously presented) The method of claim 29, wherein sealing the rear end comprises installing a plunger.

34. (original) The method of claim 29, wherein the dry medicament portion is a powder.

35. (original) The method of claim 29, wherein the dry medicament portion is a tablet sized and adapted to fit through the front end of the chamber.

36. (original) The method of claim 35, wherein the tablet is prepared by lyophilizing a liquid suspension or solution containing suspended or dissolved dry medicament portion in a separate container.

37. (previously presented) The method of claim 29 further comprising after inserting a seal structure and before filling the rear compartment:
placing the chamber in a low particulate environment.

38. (previously presented) The method of claim 37 further comprising after sealing the rear end of the rear compartment and before filling the front compartment:
removing the chamber from the low particulate environment; and
placing the chamber in an aseptic environment.

39. (currently amended) A method of loading a chamber of an automatic injection device with a medicament, the method comprising:

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inserting a needleless seal structure into the chamber to divide the chamber into a front compartment and a rear compartment, the chamber having an open front end forming an open end of the front compartment and an open rear end forming an open end of the rear compartment, the seal structure initially sealing the front compartment from the rear compartment and having a moveable sealing plug operative to move from a sealing position to a by-pass area within the seal structure to open a flow path through the seal structure, the open front end of the chamber having an open mouth configuration;

placing the chamber in a low particulate environment;

filling the rear compartment of the chamber with a wet medicament portion through a rear end of the chamber, the wet medicament contacting interior side walls of the chamber;

sealing the rear end of the chamber;

removing the chamber from the low particulate environment;

placing the chamber in an aseptic environment;

filling the front compartment of the chamber with a dry medicament portion through a front end of the chamber; and

sealing the front end of the chamber.

40. (previously presented) The method of claim 39, wherein sealing the front end comprises placing a tapered insert in the front end of the chamber, the tapered insert having a tapered flow path therein, the flow path being tapered so that the diameter thereof increases as it extends rearwardly.

41. (previously presented) The method of claim 39, further comprising attaching a needle assembly to the front end.

42. (previously presented) The method of claim 39, wherein the rear compartment of the chamber is filled with the wet medicament portion before the front compartment of the chamber is filled with the dry medicament portion.

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43. (previously presented) The method of claim 39, wherein filling the front compartment of the chamber with a dry medicament comprises:

filling the front compartment with a liquid; and

lyophilizing the liquid to leave only the dry medicament in the chamber.

44. (previously presented) The method of claim 39, wherein sealing the rear end comprises installing a plunger.

45. (previously presented) A method of loading a chamber of an automatic injection device with a medicament, the method comprising:

inserting a seal structure into the chamber at a user selected location within the chamber to divide the chamber into a front compartment and a rear compartment, the seal structure initially sealing the front compartment from the rear compartment and having a slidable sealing plug operative to slide from a sealing position to a by-pass area within the seal structure to open a flow path through the seal structure, the chamber having no interior structures and an open front end forming an open end of the front compartment and an open rear end forming an open end of the rear compartment, the open front end and the open rear end each having an open mouth configuration;

filling the rear compartment of the chamber with a wet medicament portion through the open mouth configuration at the rear end of the chamber;

sealing the rear end of the chamber;

filling the front compartment of the chamber with a dry medicament portion through the open mouth configuration at the front end of the chamber; and

sealing the front end of the chamber.

46. (previously presented) The method of claim 45, wherein sealing the front end comprises placing a tapered insert in the front end of the chamber, the tapered insert having a tapered flow pathway therein, the flow pathway being tapered so that the diameter thereof increases as it extends rearwardly.

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47. (previously presented) The method of claim 45, wherein sealing the rear end comprises installing a plunger.

48. (previously presented) The method of claim 45, wherein the front compartment of the chamber is filled with the dry medicament portion before the rear compartment of the chamber is filled with the wet medicament portion.

49. (previously presented) The method of claim 45, wherein the seal structure has an outer sealing member that forms a seal with the inner wall of the container.

50. (previously presented) The method of claim 45, further comprising attaching a needle assembly to the front end.